

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended): A radiopaque stent comprising:

a cylindrical main body comprising a radiopaque cobalt chromium alloy that comprises cobalt, chromium, and one or more radiopaque materials and trace elements selected from the group of silicon, phosphorus, carbon and sulfur, in a concentration of less than about 1 percent by weight;

wherein weight percentages of the cobalt chromium and one or more radiopaque materials and trace elements are configured to provide the main body with structure that is visible but does not obscure an underlying vessel morphology when subjected to imaging;

wherein the cobalt chromium alloy is balloon expandable.

2. (Cancel)

3. (Previously presented): The radiopaque stent of claim 2 wherein the main body has a first unexpanded outside diameter of about 0.04 to about 0.10 inches and a second expanded diameter of at least about 1 to 15 millimeters.

4. (Previously presented): The radiopaque stent of claim 1 wherein the main body has a wall thickness of at least about 0.001 inches.

5. (Previously presented): The radiopaque stent of claim 1 further comprising nickel.

6. (Previously presented): The radiopaque stent of claim 1 wherein the radiopaque materials are selected from the group comprising Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, In, Sn, Sb, Te, I, Ba, La, Hf, Ta, W, Re, Os, Ir, Pt, Au and combinations of these materials.

7. (Previously presented): The radiopaque stent of claim 1 wherein the tubular main body comprises an undulating pattern.

8. (Previously presented): The radiopaque stent of claim 1 wherein the tubular main body is a solid radiopaque tube.
9. (Previously presented): The radiopaque stent of claim 8 wherein the solid radiopaque tube defines holes.
10. (Withdrawn): The radiopaque stent of claim 1 wherein the cylindrical main body is coiled.
11. (Withdrawn): The radiopaque stent of claim 1 wherein the cylindrical main body is ratcheted.
12. (Withdrawn): The radiopaque stent of claim 1 wherein the cylindrical main body defines a backbone.
13. (Previously presented): The radiopaque stent of claim 1 wherein the cylindrical main body is expandable.
14. (Withdrawn): The radiopaque stent of claim 1 wherein the chromium concentration is about 10 to 25 percent by weight.
15. (Withdrawn): The radiopaque stent of claim 1 wherein the concentration of radiopaque materials is about 10 to 30 percent by weight.
16. (Withdrawn): The radiopaque stent of claim 1 wherein the concentration of nickel is about 5 to 30 percent by weight.
17. (Canceled)
18. (Withdrawn): The radiopaque stent of claim 1 wherein the cylindrical main body comprises one or more wires comprising cobalt, chromium and one or more radiopaque materials, wherein the wires are shaped to form the cylindrical main body.
19. (Previously presented): The radiopaque stent of claim 1, wherein the radiopaque stent forms part of an assembly including a catheter.

20. (Previously presented): The assembly of claim 19 wherein the radiopaque materials are selected from the group comprising Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, In, Sn, Sb, Te, I, Ba, La, Hf, Ta, W, Re, Os, Ir, Pt, Au and combinations of these materials.

21. (Previously presented): The assembly of claim 19 and further comprising a balloon mounted to the catheter, the balloon positioned to expand the radiopaque stent.

22 - 37 (Canceled)

38. (Previously presented): The radiopaque stent of claim 1, wherein the one or more radiopaque materials is selected from the group comprising elements having atomic numbers from 56 to 79.

39. (Previously presented): The radiopaque stent of claim 1, wherein the cobalt chromium alloy further comprises nickel in a concentration of between about 5 to 15 percent by weight, molybdenum in a concentration of between about 0 to 5 percent by weight, iron in a concentration of between about 0 to 5 percent by weight, manganese in a concentration of between about 0 to 5 percent by weight, and wherein the chromium is present in a concentration of between about 10 to 25 percent by weight, and the one or more radiopaque materials is present in a concentration of between about 10 to 30 percent by weight.

40. (Previously presented): The radiopaque stent of claim 1, wherein the cobalt chromium alloy further comprises:

nickel in a concentration of between about 5 to 30 percent by weight;

iron in a concentration of less than about 5 percent by weight;

manganese in a concentration of between about 1 to 5 percent by weight;

trace elements selected from the group of molybdenum, silicon, phosphorus, carbon and sulfur, in a concentrations of less than about 1 percent by weight,

wherein the chromium is present in a concentration of between about 10 to 25 percent by weight, and the radiopaque materials are present in a concentration of between about 10 to 30 percent by weight, wherein the one or more radiopaque materials is selected from the group comprising tungsten and tantalum.

41. (Previously presented): The radiopaque stent of claim 1, wherein the cobalt chromium alloy further comprises chromium in a concentration of between about 19 to 21 percent by weight, tungsten in a concentration of between about 14 to 16 percent by weight, nickel in a concentration of between about 9 to 11 percent by weight, iron in a concentration of less than about 3 percent by weight, manganese in a concentration of between about 1 to 2 percent by weight, and trace elements selected from the group of silicon, phosphorus, carbon and sulfur, in a concentration of less than about 1 percent by weight.

42. (Previously presented): The radiopaque stent of claim 41, wherein cobalt comprises the balance of the cobalt chromium alloy.

43. (Previously presented): The radiopaque stent of claim 1, wherein the cobalt chromium alloy further comprises chromium in a concentration of between about 19 to 21 percent by weight, tungsten in a concentration of between about 14 to 16 percent by weight, and nickel in a concentration of between about 9 to 11 percent by weight.

44. (Previously presented): The radiopaque stent of claim 43, wherein the cobalt chromium alloy further comprises iron in a concentration of less than about 3 percent by weight, and manganese in a concentration of between about 1 to 2 percent by weight.

45 - 52 (Cancel)

53. (Previously presented): The radiopaque stent of claim 1, wherein the radiopaque cobalt chromium alloy has a minimum total elongation of about 30 percent.

54. (Withdrawn) The radiopaque stent of claim 1, wherein the concentration of radiopaque materials is about 20 to 30 percent by weight.

55. (Previously presented): The radiopaque stent of claim 1, wherein the cylindrical main body has a wall thickness of no more than about .004 inches.

56. (Previously presented): A radiopaque stent, comprising:
a cylindrical main body comprising a radiopaque cobalt chromium alloy that comprises cobalt, chromium, and one or more radiopaque materials;

wherein the main body is visible but does not obscure an underlying vessel morphology when subjected to imaging;

wherein the cobalt chromium alloy further comprises chromium in a concentration of between about 19 to 21 percent by weight, tungsten in a concentration of between about 14 to 16 percent by weight, nickel in a concentration of between about 9 to 11 percent by weight, iron in a concentration of less than about 3 percent by weight, manganese in a concentration of between about 1 to 2 percent by weight, and trace elements selected from the group of silicon, phosphorus, carbon and sulfur, in a concentration of less than about 1 percent by weight.

57. (Previously presented): The radiopaque stent of claim 56, wherein cobalt comprises the balance of the cobalt chromium alloy.

58. (Previously presented): The radiopaque stent of claim 56, wherein the cylindrical main body has a wall thickness of no more than about .004 inches.

59. (Previously presented): The radiopaque stent of claim 56, wherein the radiopaque cobalt chromium alloy has a minimum total elongation of about 30 percent.

60. (Previously presented): The radiopaque stent of claim 56, wherein the cylindrical main body defines a backbone.